

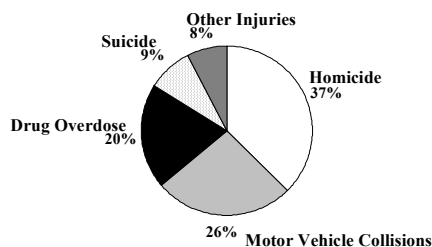
SAFE MOTHERHOOD IN MASSACHUSETTS

A FACT SHEET ON PREGNANCY-ASSOCIATED INJURY DEATHS, 1990-1999

SCOPE OF THE PROBLEM

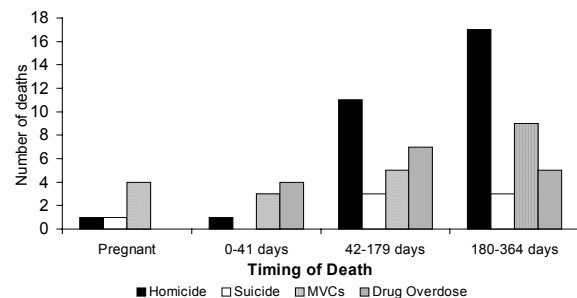
- From 1990-1999, 232 women died from all causes while pregnant or during the first year postpartum. That is, for every 100,000 live births, there were 27 pregnancy-associated deaths.
- More than one-third (n=80) of the deaths were injury-related. The rest (n=152) were caused by acute or chronic medical conditions.
- Homicide (n=30) was the leading cause of all pregnancy-associated deaths. Two-thirds (n=20) of homicide deaths were known or alleged cases of domestic violence.
- Other causes of injury-related deaths were motor vehicle collisions (n=21), drug overdose (n=16), suicide (n=7), and other injuries (n=6). (Figure 1) The leading cause of medical-related deaths was cancer (n=28).
- All injury deaths are considered to be preventable by one or more changes in the health care system related to clinical care, facility infrastructure, public health infrastructure, and/or patient factors.

Figure 1. Distribution of Injury Deaths by Cause, Massachusetts, 1990-1999



N=80

Figure 2. Number of pregnancy-associated injury deaths by cause and period of risk, Massachusetts 1990-1999



TIMING OF INJURY DEATHS (Figure 2)

- Most injury-related deaths (76.3%) occurred between 6 weeks and one year postpartum.
- 9 out of 10 homicides occurred between 6 months and one year postpartum.
- No drug overdose deaths occurred during pregnancy. No suicides occurred in the first 6 weeks postpartum.
- Deaths caused by motor vehicle collisions occurred throughout the entire period, with two-thirds occurring after the traditional 6-week postpartum period.

WOMEN AT RISK FOR INJURY-RELATED DEATHS

- Disparities exist by race and Hispanic ethnicity, age and payer source.
 - **Black non-Hispanic** women were **4 times more likely** and **Hispanic** women **2 times more likely** to die of injury causes than white non-Hispanic women.
 - **Younger** women (age 15-24) were **3 times** more likely to die than older women.
 - Low income (<225% of federal poverty level) women who had a live birth and a public payer, such as MassHealth or Healthy Start, were 7.5 times more likely to die from pregnancy-associated injury as women with a private payer.

PROMOTING SAFE MOTHERHOOD

The timing of these deaths suggests a prevention strategy that includes not only obstetrical providers, but a variety of providers that have access to pregnant women and mothers of infants throughout the first year postpartum. All strategies should be developed with a respect for the woman's culture, as well as a recognition that of the complexity of women's lives.

Strategies for prevention include, but are not limited to the following:

- **Screen and Rescreen** all pregnant and all mothers of infants for domestic violence, suicide risk, depression and postpartum depression, substance use and seatbelt use.
- **Educate all women** about these issues.
- **Advise and Counsel** women at risk.
- **Document** screening results and injuries carefully.
- **Institute policies and protocols** for screening and referral.
- **Promote** a comprehensive response to injury prevention in your community.

DEFINITIONS:

Pregnancy-associated death: Women who died while pregnant or up to one year following the end of pregnancy, from any cause including injuries. (Berg C, et al. Strategies to reduce pregnancy-related deaths: from identification and review to action. Atlanta: Centers for Disease Control and Prevention, 2001)

Safe Motherhood: Promotion of the well-being of women to help them achieve healthy pregnancy, birth and parenthood. This includes preventing pregnancy-associated illness, injury and death.

RESOURCES:

1. Pregnancy-associated injury deaths: violence, substance abuse and motor vehicle collisions, 1990-1999. MDPH, 2002. Available at www.mass.gov/dph/bfch/mcfh/safemoms.htm.
2. Pregnancy-associated mortality: medical causes of death, 1995-1998. MDPH, 2000.
3. More information about the Safe Motherhood Campaign initiated by the Centers for Disease Control and Prevention can be found at www.cdc.gov/nccdphp/drh/smh_aag.htm.